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THE APPLICATION OF BEST PETROLEUM EXPLORATIONS, INC. FOR DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE RUBY LEASE, WELL NO. 1D, JACK COUNTY REGULAR FIELD, JACK COUNTY, TEXAS

**HEARD BY:** Richard D. Atkins, P.E. - Technical Examiner

James M. Doherty - Legal Examiner

APPEARANCES: REPRESENTING:

APPLICANT:

David Gross Best Petroleum Explorations, Inc.

Dale Miller

PROTESTANTS:

M. Brad and Sandra Dixon Themselves

### PROCEDURAL HISTORY

Application Filed:
Protest Received:
Request for Hearing:
Notice of Hearing:
Hearing Held:
Transcript Received:
Proposal for Decision Issued:

September 15, 2011
August 17, 2011
November 15, 2011
January 9, 2012
February 8, 2012
February 21, 2012
March 6, 2012

### **EXAMINERS' REPORT AND PROPOSAL FOR DECISION**

#### STATEMENT OF THE CASE

Best Petroleum Explorations, Inc. ("Best") requests disposal authority pursuant to Statewide Rule 9 for the Ruby Lease, Well No. 1D, Jack County Regular Field, Jack County, Texas.

Notice of the subject application was published in the *Jack County Herald*, a newspaper of general circulation in Jack County, on August 5, 2011. Notice of the application was sent to the Jack County Clerk, offset operators within ½ mile and to the

surface owner of the disposal tract on September 15, 2011.

The application is protested by surface owners located approximately two miles south of the proposed disposal well tract.

# **DISCUSSION OF THE EVIDENCE**

# **Applicant's Evidence**

The proposed well is located on a 280 acre lease tract that is in a rural area and is situated approximately 4 miles north of the town of Barton Chapel, Texas. Best plans to re-enter the Ruby Lease, Well No. 1D, that was drilled in September 1951 and plugged in February 1966. The well has 10 3/4" conductor casing set at 107 feet that is cemented to the surface with 81 sacks of cement. The well has 8 5/8" surface casing set at 503 feet that is cemented to the surface with 125 sacks of cement. Best proposes to run 4 1/2" production casing to 2,600 feet that will be cemented to the surface with 425 sacks of cement. The well will be equipped with 2 3/8" tubing and packer set at 2,010 feet (See attached Best Exhibit No. 12 - Wellbore Diagram).

The proposed disposal interval is located in the Buttram formation between 2,100 feet and 2,370 feet. A cross-section across an area of approximately two miles demonstrates that the proposed Buttram disposal interval is continuous and has three main sands that are each over 50 feet thick. The interval is suitable for disposal and is used for disposal in other area wells. Additionally, there is approximately 250 feet of shale above the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the disposal interval. Best requests authority to dispose of lease produced saltwater at a maximum rate of 1,000 barrels per day with a maximum surface injection pressure of 500 psig.

The Groundwater Advisory Unit of the Texas Railroad Commission "GAU" recommends that usable-quality ground water be protected to a depth of 450 feet below the land surface. The base of the underground source of drinking water ("USDW") is 1,400 feet. Best submitted a GAU letter dated September 13, 2011, which stated that injection into the proposed injection interval will not harm usable-quality water.

There is one shut-in well, operated by Stamper Operating Co., Inc., and one plugged well located within the 1/4 mile radius of review. There are five producing wells located within the 1/2 mile radius of review. All of the wells are properly plugged and abandoned or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval.

Best has a current approved Form P-5 (Organization Report), a posted \$50,000 financial assurance bond and no pending Commission enforcement actions.

## **Protestants' Evidence**

The application is protested by surface owners located approximately two miles south of the proposed disposal well tract. They are primarily concerned that the proposed disposal well will pose a threat to their usable-quality water, as the proposed injection interval is between 2,000 feet and 2,500 feet. They believe that the proposed injection interval is too shallow and poses too much of a risk to the freshwater zones. They proposed that Best change its plan and configure the proposed disposal well to inject into the deeper Ellenburger formation.

### **EXAMINERS' OPINION**

The examiners recommend that the application be approved. The proposed disposal well will be completed in a manner that will protect usable-quality groundwater and will confine injected fluids to the injection interval. Best presented sufficient evidence to establish that all of the wells within a 1/2 mile radius are properly plugged or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the disposal interval. In addition, the proposed disposal well will be for the disposal of only lease produced saltwater. The disposal of produced saltwater on the lease will provide a more economic means of saltwater disposal and will ultimately result in the recovery of additional hydrocarbons that would otherwise be uneconomic to produce. Therefore, the approval of the application is in the public interest.

### FINDINGS OF FACT

- 1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
- 2. Notice of the subject application was published in the *Jack County Herald*, a newspaper of general circulation in Jack County, on August 5, 2011. Notice of the application was sent to the Jack County Clerk, offset operators within ½ mile and to the surface owner of the disposal tract on September 15, 2011.
- 3. The proposed injection into the Ruby Lease, Well No. 1D, will not endanger useable-quality ground water.
  - a. The GAU recommends that usable-quality ground water be protected to a depth of 450 feet below the land surface.
  - b. Best plans to re-enter the Ruby Lease, Well No. 1D, that was drilled in September 1951 and plugged in February 1966.

- c. The well has 10 3/4" conductor casing set at 107 feet that is cemented to the surface with 81 sacks of cement.
- d. The well has 8 5/8" surface casing set at 503 feet that is cemented to the surface with 125 sacks of cement.
- e. There is approximately 250 feet of shale above the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the disposal interval.
- 4. The proposed injection into the Ruby Lease, Well No. 1D, will not endanger production from other oil, gas or mineral bearing formations.
  - a. Best proposes to run 4 1/2" production casing to 2,600 feet that will be cemented to the surface with 425 sacks of cement.
  - b. The well will be equipped with 2 3/8" tubing and packer set at 2,010 feet.
  - c. There is one shut-in well, operated by Stamper Operating Co., Inc., and one plugged well located within the 1/4 mile radius of review. There are five producing wells located within the 1/2 mile radius of review.
  - d. All of the wells are properly plugged and abandoned or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval.
- 5. Use of the Ruby Lease, Well No. 1D, as a lease disposal well is in the public interest.
  - a. The use of the proposed disposal well will provide a more economic means of produced saltwater disposal.
  - b. The use of the proposed disposal well will ultimately result in the recovery of additional hydrocarbons that would otherwise be uneconomic to produce.
- 6. Best has a current approved Form P-5 (Organization Report), a posted \$50,000 financial assurance bond and no pending Commission enforcement actions.

#### CONCLUSIONS OF LAW

- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
- 2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.
- 3. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
- 4. Best Petroleum Explorations, Inc. has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

### **EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission approve the application of Best Petroleum Explorations, Inc. for disposal authority pursuant to Statewide Rule 9 for the Ruby Lease, Well No. 1D, as set out in the attached Final Order.

Respectfully submitted,

Richard D. Atkins, P.E. Technical Examiner James M. Doherty Legal Examiner